



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/899,593	07/05/2001	Darryl V. Landvater	B06521-00007	4023
21918	7590	08/02/2006	EXAMINER	
DOWNS RACHLIN MARTIN PLLC 199 MAIN STREET P O BOX 190 BURLINGTON, VT 05402-0190				JARRETT, SCOTT L
ART UNIT		PAPER NUMBER		
		3623		

DATE MAILED: 08/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/899,593	LANDVATER, DARRYL V.
Examiner	Art Unit	
Scott L. Jarrett	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 17 May 2006.

2a) This action is **FINAL**.                            2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-40 is/are pending in the application.

4a) Of the above claim(s) 13-40 is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-12 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 17 May 2006 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_

5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_

**DETAILED ACTION**

1. This **Final** Office Action is in response to Applicant's amendment filed May 17, 2006. Applicant's amendment amended claims 1-12. Currently Claims 1-12 are pending, Claims 13-40 having been previously withdrawn.

***Response to Amendment***

2. The Objection to Figure 14 has been withdrawn in response to Applicant's submission of a corrected drawing.

The Objection to the Specification has been withdrawn in response to Applicant's amendments to the Specification.

The Objection to Claim 4 has been withdrawn in response to Applicant's amendment to Claim 4.

***Response to Arguments***

3. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-12 are rejected under 35 U.S.C. 102(b) based upon a public use or sale of the invention.

The public use or sale of the invention, a system and method for determining time-phased sales forecasts and planned replenishment shipments, sold by the Applicant under one or more of the following product/service names: Time Phase Requirements Planning, Time-Phased Requirements Planning, Time-Phase Capacity Planning, Distribution Requirements Planning or LogiCNet DRP, is evidenced by at least the following:

- Garry, Michael, Efficient Replenishments Key to ECR (1993)
  - Column 1, Last Two Paragraphs, Page 8; Column 2, Paragraphs 1-2, Page 8;
- Effective inventory management starts at the store (1998)
  - Paragraphs 4,6, Page 1;
- Purpura, Linda, Forecast Views (1998)
  - Last Paragraph, Page 2; Page 3; and

- Martin, Andre, Capacity planning: the antidote to supply chain constraints (2001)
  - Paragraph 1, Page 2; Paragraph 2, Page 4; Paragraph 2, Page 8; Last Two Paragraphs, Page 10.

An issue of public use or on sale activity has been raised in this application. In order for the examiner to properly consider patentability of the claimed invention under 35 U.S.C. 102(b), additional information regarding this issue is required as follows: please provide the names of any products or services that have incorporated the claimed subject matter (e.g. Customer Demand Management, Time Phase Requirements Planning, Time-Phased Requirements Planning, LogiCNet DRP, Distribution Resource Planning, etc.) as well as information regarding their public use and/or sale (e.g. product road maps, sales presentations, investor disclosures, case studies, product manuals, product brochures, etc.), and provide a citation and a copy of each publication which any of the applicants authored or co-authored and which describe the disclosed subject matter and/or products or services.

In response to this requirement, please confirm the inventorship of the invention, examiner wishes to ensure that an inventor/co-inventor was not inadvertently omitted from the current application as the following documents appear to suggest an additional inventor/co-inventor, Mr. Andre Martin:

- Garry, Michael, Efficient Replenishments Key to ECR (1993)

- Column 1, Last Two Paragraphs, Page 8; Column 2, Paragraphs 1-2, Page 8;
- Effective inventory management starts at the store (1998)
  - Paragraphs 4,6, Page 1;
- Purpura, Linda, Forecast Views (1998)
  - Page 3; and
- Martin, Andre, Capacity planning: the antidote to supply chain constraints (2001)
  - Paragraph 1, Page 2; Paragraph 2, Page 4; Paragraph 2, Page 8; Last Two Paragraphs, Page 10.

Applicant is reminded that failure to fully reply to this requirement for information will result in a holding of abandonment.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-2 and 4-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willemain et al., U.S. Patent No. 6,205,431 in view of Lee et al., U.S. Patent No. 5,712,985 and further in view of Jenkins et al., U.S. Patent Publication No. 2002/0188499.

Regarding Claims 1, 7, 9 and 11 Willemain et al. teach a system and method for determining time-phased sales forecasts for products that sell in low volumes (slow movers, slow inventory, etc.) comprising:

- determining projected (forecasted, predicted, estimated, etc.) sales of a plurality of low-volume (sporadic, slow moving, slow movers, sporadic, intermittent, etc.) products for a retail store in the supply chain during a first time period (lead time, forecast horizon, time period, timed phase, etc.), via a forecasting subsystem (component, module, code, program, etc.; e.g. use of Croston's old and very well known method for forecasting intermittent demand; Column 1, Lines 42-55; Column 17-25; Column 3, Lines 1-42; Column 7, Lines 3-5; Figure 1, Element 22; Figure 2); and

- determining projected (forecasted, predicted, estimated, etc.) sales of a plurality of low-volume (sporadic, slow moving, slow movers, etc.) products for a retail

store in the supply chain during a first time period (lead time, forecast horizon, time period, timed phase, etc.), via a forecasting subsystem, using randomization techniques (Croston's method, Bootstrapping, jittering, etc.; "calculating/forecasting lead time demand values, wherein the calculating step comprises the step of randomly sampling or selecting values from historical demand values", Column 3, Lines 1-42; Column 4, Lines 23-40; Column 6, Lines 15-30; Column 7, 3-14; Column 8, Lines 10-32; Column 9, 5-25; Column 10, Lines 55-68; Figures 3-4).

Willemain et al. further teach varying the lead time (planning/forecast horizon) using the selection of random values from a statistical distribution of potential/possible lead times; i.e. Willemain et al. teach the utilization of randomization techniques to both project demand for a plurality of low-volume products wherein the randomization techniques to "fill in the gaps" in the historical demand and are used to vary forecast horizon (lead time; Column 7, Lines 49-56).

Willemain et al. does not expressly teach distributing *shipment dates* using a seasonal selling profile for each product and randomization techniques as claimed.

Lee et al. teach determining sales forecasts (e.g. retail/store-level forecasts) for a plurality of products by accounting for a plurality of sales influences including but not limited to seasonal selling profiles, promotions, historical demand, time of day and the like (Column 1, Lines 60-68; Column 2, Lines 1-9 and 54-60; Column 3, Lines 8-50; Column 9, Lines 40-50) wherein the "forecast profile indicates the quantity of a business

item to be produced, supplied, schedule or otherwise provided in each of the intervals of time" (Column 3, Lines 48-50) in an analogous art of sales forecasting for the purposes of accounting for a plurality of demand/sales influences more effectively/accurately (Column 2, Lines 54-68).

It would have been obvious for one skilled in the art at the time of the invention that the system and method for forecasting sales of a plurality of low-volume products as taught by Willemain et al. would have benefited from factoring in a plurality of sales influences, including but not limited to seasonal influences, via a seasonal selling profile in view of the teachings of Lee et al.; the resultant system/method enabling businesses to more effectively and/or accurately forecast sales by taking into account a plurality of demand/sales influences (Lee et al.: Column 2, Lines 54-68).

Neither Willemain et al. nor Lee et al. expressly teach distributing replenishment shipment dates as claimed.

Jenkins et al. teach distributing (generating, determining, assigning, allocating, etc.) within the first time period shipment dates for each of the plurality of products (Paragraphs 0027, 0042, 0044-0046, 0049, 051, 0089, 0093, 0101; Figures 1A-1B; Figure 2, Elements 200, 210; Figure 3, Element 300), via a replenishment shipment subsystem, in an analogous art of time-phase sales forecasting and replenishment

requirements planning for the purposes of optimizing product inventories across the supply chain/network (Paragraph 0007, 0014, 0064).

Jenkins et al. further teach a system and method for determining time phased sales forecasts and replenishment shipments (date, quantity, duration, frequency, time-phased inventory plans) for a plurality of products in a supply chain wherein the system/method *adjusts* (varies, spreads-out, assigns, allocates, distributes, delays, time-phases, etc.; Paragraphs 0101, 0216-0217) the replenishment shipments (date, quantity, location) based on a plurality of factors including but not limited to (Paragraphs 0131, 0174, 0216-0217; Figure 2; Tables 3-6): projected sales/selling profile, seasonal information (Paragraph 0064), products currently in the supply chain (in-transit, on-hand, date-sensitivity, shelf-life, expiration date, minor/major shipments, etc.), calendar restrictions/constraints (Paragraph 0171), shipment aggregation (Paragraph 0174) and the like.

It would have been obvious to one skilled in the art at the time of the invention that the forecasting system and method for determining time-phased sales forecasts using well known randomization techniques to generate forecast sales for low-volume products as taught by the combination of Willemain et al. and Lee et al. would have benefited from planning replenishments (replenishment shipment dates, quantity, etc.) for the plurality of low-volume products based on the sales forecast in view of the teachings of Jenkins et al.; the resultant system and method enabling businesses to

optimize product inventories across the supply chain/network (Jenkins et al.: Paragraph 0007, 0014, 0064).

Regarding Claim 2 Willemain et al. teach a forecasting system and method wherein the system generates a random number for each of the plurality of low-volume products (Croston's Method, Bootstrapping, jittering etc.; "means for randomly assigning one of the nonzero historical demand values to each next nonzero lead time demand value and means for jittering each next nonzero lead time demand value" Column 3, Lines 1-42; Column 4, Lines 23-40; "Jittering is a process in which selected historical values are randomly changed to "neighboring" values in order to enlarge the set of possible forecast values", Column 6, Lines 15-30; Column 7, 3-14; Column 8, Lines 10-32; Column 9, 5-25; Column 10, Lines 30-68; Figures 3-4).

Regarding Claim 4 Willemain et al. teach a forecasting system and method further comprising low-volume products having more than one projected (forecasted, predicted, etc.) sale for the first time period, via the system (component, program, code, etc.; Column 3, Lines 1-40; Tables 1-5).

Neither Willemain et al. nor Lee et al. expressly teach determining different shipment dates for the plurality of products as claimed.

Jenkins et al. teach determining different shipment dates within the first time period for the low-volume products having more than one projected (forecasted, predicted, etc.) sale for the first time period, via the replenishment subsystem, (Paragraphs 0027, 0042, 0044-0046, 0049, 051, 0089, 0093, 0101; Figures 1A-1B; Figure 2, Elements 200, 210; Figure 3, Element 300), via a replenishment shipment subsystem, in an analogous art of time-phase sales forecasting and replenishment requirements planning for the purposes of optimizing product inventories across the supply chain/network (Paragraph 0007, 0014, 0064).

It would have been obvious to one skilled in the art at the time of the invention that the forecasting system and method for determining time-phased sales forecasts using well known randomization techniques to generate forecast sales for low-volume products as taught by the combination of Willemain et al. and Lee et al. would have benefited from planning replenishments (replenishment shipment dates, quantity, etc.) having different shipment dates for the plurality of low-volume products based on the sales forecast in view of the teachings of Jenkins et al.; the resultant system and method enabling businesses to optimize product inventories across the supply chain/network (Jenkins et al.: Paragraph 0007, 0014, 0064).

Regarding Claims 5, 8, 10 and 12 Willemain et al. does not expressly adjusting the shipment dates for at least some of the plurality of low-volume products when excess inventory for at least some of the products exists at the retail store as claimed.

Jenkins et al. teach adjusting the replenishment shipments (date, quantity, location) for at least some of the plurality of products when excess (overstock, surplus, etc.) inventory for at least some of the products exists at any level/entity in the supply chain (e.g. retail store; Paragraphs 0009, 0015, 0044, 0051, 0055, 0101, 0138) in an analogous art of demand forecasting for the purposes of avoiding overstocks/surplus of products at one or more locations and/or enabling businesses to redeploy excess products within the supply chain/network (Paragraphs 0015, 0053, 0138).

It would have been obvious to one skilled in the art at the time of the invention that the system and method for determining time-phased sales forecasts as taught by the combination of Willeman et al. and Lee et al. would have benefited from determining product shipment dates as well as adjusting the replenishment shipments (date, location, quantity) for at least some of the plurality of low-volume products when excess inventory for at least some of the products exists at the retail store in view of the teachings of Jenkins et al.; the resultant system/method enabling business to minimize/avoid overstocks/surplus situations and/or redeploy excess products within the supply chain/network (Jenkins et al.: Paragraphs 0015, 0053, 0138).

Regarding Claim 6 Willeman et al. teach a forecasting system and method further comprising determining projected sales for a plurality of low-volume products for a store in a supply chain during a first time period (Column 1, Lines 10-20 and 42-55;

Column 17-25; Column 3, Lines 1-42; Column 7, Lines 3-5; Figure 1, Element 22;  
Figure 2).

Willemain et al. does not expressly teach determining projected sales for a plurality of low-volume products for a store in a supply chain during a first time period for a *plurality* of retail stores in a supply chain as claimed.

Official notice is taken that it is old and well known to forecast sales/demand for a plurality of products in a supply chain/network comprising of a plurality of stores. For example large retail chain stores/merchants typically perform store-level forecasts and the SKU-level for the plurality of their stores, which are fed/sent up to centralized systems (e.g. distribution requirement planning systems) that in turn generate replenishment orders based on the sales forecasts.

It would have been obvious to one skilled in the art at the time of the invention that the system and method for determining sales forecasts for low-volume products in a store in a supply chain as taught by the combination of Willemain et al., Lee et al and Jenkins et al. would have been applied/utilized for generate sales forecasts for a plurality of products at the store-level in view of teachings of official notice; the resultant/system enabling business, such as large retail chains, to utilize well known distribution requirements planning systems to generate replenishment orders based on the store-level forecasts.

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Willemain et al., U.S. Patent No. 6,205,431 in view of Lee et al., U.S. Patent No. 5,712,985, in view of Jenkins et al., U.S. Patent Publication No. 2002/0188499 as applied to Claim 1 above and further in view of Schultz, Carl, Replenishment Delays For Expensive Slow-Moving Items (1987).

Regarding Claim 3 Willemain et al. does not expressly teach a forecasting system and method further comprising utilizing the generated random numbers to determine an offset (slack, delay, etc.) from the first day of the first time period for each of the low-volume products that defines when the products are to be shipped (i.e. shipment date), via the replenishment subsystem as claimed.

Jenkins et al. teach modifying/adjusting replenishment shipments (time-phased inventory planning), as discussed above, in an analogous art of sales forecasting and replenishment planning for the purposes of avoiding excess/surplus inventory and/or optimizing product inventories in the supply chain/network (Paragraphs 0007, 0014).

It would have been obvious to one skilled in the art at the time of the invention that the forecasting system and method for determining time-phased sales forecasts using well known randomization techniques to generate forecast sales for low-volume products as taught by the combination of Willemain et al. and Lee et al. would have benefited from planning replenishments (replenishment shipment dates, quantity, etc.)

for the plurality of low-volume products based on the sales forecast in view of the teachings of Jenkins et al.; the resultant system and method enabling businesses to optimize product inventories across the supply chain/network (Jenkins et al.: Paragraph 0007, 0014, 0064).

Willemain et al., Lee et al. and Jenkins et al. do not expressly teach determining an offset from the first time period that defines when the products are to be shipped as claimed.

Schultz teaches determining an offsets (replenishment delay) from the first day of the first time period for low-volume (slow-moving, intermittent, sporadic, etc.) products that defines when the products are to be shipped (Abstract; Paragraph 1, Page 1; Paragraph 3, Page 1455; Figure 1; Table 1) in an analogous art of sales forecasting and replenishment planning (Abstract) and further wherein an the “optimal” offset/delay can is determined using well known probability distribution functions for the purposes of “introducing an additional control factor” (Schultz: Paragraph 1, Page 1454) into the replenishment planning process.

It would have been obvious to one skilled in the art at the time of the invention that the system and method for forecasting sales and planning replenishment shipments as taught by the combination of Willemain et al., Lee et al. and Jenkins et al. would have benefited from determining a replenishment shipment offset/delay in view of the

teachings of Schultz; the resultant system/method enabling businesses to optimize replenishment shipments for a plurality of low-volume products by "introducing an additional control factor" (Schultz: Paragraph 1, Page 1454) into the replenishment planning process.

Willeman et al., Lee et al., Jenkins et al. and Schultz do not expressly teach using *random* numbers to determine an shipment offset as claimed.

Official notice is taken that probability distribution functions are commonly used to model random/uncertain events. For example probability distribution functions are used to approximate customer demand for a product or approximate the arrival times of customers at a store, wherein the random number (offset), selected from the probability distribution function and sometimes scaled, and then added to the beginning of the time period under study and represents the (random) arrival time of the customer at the store or project product demand at a particular point in time.

It would have been obvious to one skilled in the art at the time of the invention that the forecasting system and method for determining time-phased sales forecasts and planned replenishment shipments for low-volume products in a retail supply chain as taught by the combination of Willeman et al., Lee et al., Jenkins et al. and Schultz, with its ability to adjust and offset replenishment shipments (date, location, quantity), would have benefited from using well known statistical and/or mathematical

methods/techniques to determine the replenishment shipment date offset, including but not limited to generating the offset using random numbers, in view of the teachings of official notice; the resultant system/method enabling businesses to project/model uncertain demand and/or uncertain replenishment shipment dealys/offsets.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Feigin et al., U.S. Patent No. 6,006,196, teach a forecasting system and method for determining time-phased sales forecasts and planned replenishment shipments for a plurality of products in a multi-echelon retail supply chain using well-known distribution requirements planning techniques, method and systems wherein the systems utilize randomization techniques to forecast sales (Column 3, Lines 20-68;

Column 2, Lines 15-22; Column 5, Lines 55-68) for the purposes of taking into account demand variability/uncertainty.

- Landvater, Daryl, U.S. Patent No. 6,609,101, teaches a system and method for forecasting sales and replenishments for a plurality of low-volume products in a plurality of retail stores.

- Croston, J.D., Forecasting and Stock Control for Intermittent Demand (1972), teaches the old and very well known method for determining time-phased sales forecasts for low-volume products (intermittent demand).

- Blackstone, John et al., Inventory management techniques (1985), teach several well known inventory management approaches/techniques including but not limited to time-phased order points using distribution and material requirement planning systems.

- Gary, Michael, Efficient replenishment: The key to ECR (1993), teaches the well known utilization of computer systems/methods to forecast demand and manage replenishment for a plurality of retail stores wherein large retail chains typically perform store-level forecasts for the plurality of their stores which are fed/sent up to centralized systems, such as DRP systems, which then utilizes the sales forecasts to generate replenishment orders.

- Maitreyee, Deb et al., A Note on the Heuristic for Replenishment of Trended Inventories Considering Shortages (1987), teach well-known methods/techniques for planning replenishment shipments, i.e. determining the optimal reorder times and sizes

based on a give demand pattern and planning horizon, for the purposes of optimizing inventory costs.

- Smart, Charles, *Bootstrap Your Way to Better Forecasts* (2001), teaches a system and method for forecasting sales and inventory requirements for products in a retail store supply chain that exhibit intermittent demand (slow-moving, low-volume, sporadic, etc.) wherein the system takes into account a plurality of demand influences including but not limited to seasonality and randomization techniques.

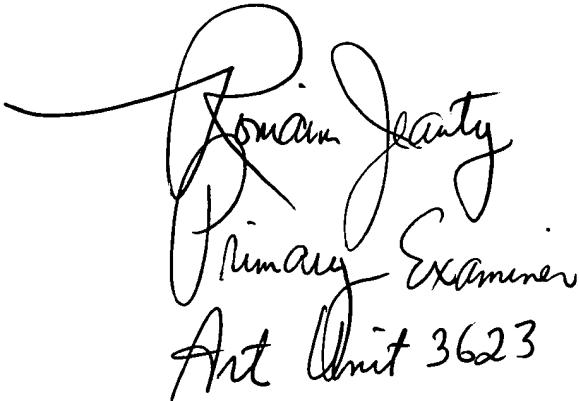
- Chaouch, Ben, *Stock levels and delivery rates in vendor-managed inventory programs* (2001), teaches a sales forecasting and replenishment/inventory planning method for developing inventory models that balance shipping frequency and inventory investment given random demand patterns (uncertain demand) and variable/uncertain delivery and lead times.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott L. Jarrett whose telephone number is (571) 272-7033. The examiner can normally be reached on Monday-Friday, 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hafiz Tariq can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SJ  
7/27/2006



Roman Janty  
Primary Examiner  
Art Unit 3623